



Search  for

1 : GI = "135940" [GenPept]

LYMPHOTOXIN-ALPHA PRECURSOR...

Related Articles, Protein

LOCUS TNFB\_HUMAN 205 aa PRI 01-NOV-1997

DEFINITION LYMPHOTOXIN-ALPHA PRECURSOR (LT-ALPHA) (TNF-BETA).

ACCESSION P01374

PID g135940

VERSION P01374 GI:135940

DBSOURCE swissprot: locus TNFB\_HUMAN, accession P01374;

class: standard.

created: Jul 21, 1986.

sequence updated: Mar 1, 1989.

annotation updated: Nov 1, 1997.

xrefs: gi: 34444, gi: 34445, gi: 37215, gi: 312411, gi: 219913, gi: 219914, gi: 339739, gi: 339740, gi: 219911, gi: 219912, gi: 339742, gi: 339743, gi: 37211, gi: 37213, gi: 412160, gi: 412161, gi: 1070570

xrefs (non-sequence databases): MIM 153440, PFAM PF00229, PROSITE PS00251, PROSITE PS50049

KEYWORDS Cytokine; Glycoprotein; Cytotoxin; Signal; Polymorphism.

SOURCE human.

ORGANISM Homo sapiens

Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.

REFERENCE 1 (residues 1 to 205)

AUTHORS NEDOSPASOV,S.A., SHAKHOV,A.N., TURETSKAYA,R.L., METT,V.A., AZIZOV,M.M., GEORGIEV,G.P., KOROBKO,V.G., DOBRYNIN,V.N., FILIPPOV,S.A., BYSTROV,N.S., BOLDYREVA,E.F., CHUVPILO,S.A., CHUMAKOV,A.M., SHINGAROVA,L.N. and OVCHINNIKOV,Y.A.

TITLE Tandem arrangement of genes coding for tumor necrosis factor (TNF-alpha) and lymphotoxin (TNF-beta) in the human genome.

JOURNAL Cold Spring Harb. Symp. Quant. Biol. 51 Pt 1, 611-624 (1986)

MEDLINE 87217060

REMARK SEQUENCE FROM N.A.

REFERENCE 2 (residues 1 to 205)

AUTHORS Nedwin,G.E., Jarrett-Nedwin,J., Smith,D.H., Naylor,S.L., Sakaguchi,A.Y., Goeddel,D.V. and Gray,P.W.

TITLE Structure and chromosomal localization of the human lymphotoxin gene

JOURNAL J. Cell. Biochem. 29 (3), 171-181 (1985)

MEDLINE 86086150

REMARK SEQUENCE FROM N.A.

REFERENCE 3 (residues 1 to 205)

AUTHORS Kobayashi,Y., Miyamoto,D., Asada,M., Obinata,M. and Osawa,T.

TITLE Cloning and expression of human lymphotoxin mRNA derived from a human T cell hybridoma

JOURNAL J. Biochem. 100 (3), 727-733 (1986)

MEDLINE 87057135

REMARK SEQUENCE FROM N.A.

REFERENCE 4 (residues 1 to 205)

AUTHORS GRAY,P.W., AGGARWAL,B.B., BENTON,C.V., BRINGMAN,T.S., HENZEL,W.J., JARRETT,J.A., LEUNG,D.W., MOFFAT,B., NG,P., SVEDERSKY,L.P., PALLADINO,M.A. and NEDWIN,G.E.

TITLE Cloning and expression of cDNA for human lymphotoxin, a lymphokine with tumour necrosis activity

JOURNAL Nature 312 (5996), 721-724 (1984)

MEDLINE 85086243

REMARK SEQUENCE FROM N.A.

REFERENCE 5 (residues 1 to 205)

AUTHORS Matsuyama,N., Okawa,N., Tsukii,Y., Endo,T. and Kaji,A.

TITLE Nucleotide sequence of a cDNA encoding human tumor necrosis factor beta from B lymphoblastoid cell RPMI 1788

JOURNAL FEBS Lett. 302 (2), 141-144 (1992)



Search  for

☒ 1 : GI = "34445" [GenPept]

lymphotoxin precursor [Homo...]

[Related Articles](#), [Protein](#), [Nucleotide](#)

LOCUS CAA25649 205 aa PRI 12-JUL-1993  
 DEFINITION lymphotoxin precursor [Homo sapiens].  
 ACCESSION CAA25649  
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 VERSION CAA25649.1 GI:34445  
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 ORGANISM Homo sapiens  
 Eukaryota; Metazoa; Chordata; Vertebrata; Mammalia; Eutheria;  
 Primates; Catarrhini; Hominidae; Homo.  
 REFERENCE 1 (residues 1 to 205)  
 AUTHORS Gray,P.W., Aggarwal,B.B., Benton,C.V., Bringman,T.S., Henzel,W.J.,  
 Jarrett,J.A., Leung,D.W., Moffat,B., Ng,P., Svidersky,L.P.,  
 Palladino,M.A. and Nedwin,G.E.  
 TITLE Cloning and expression of cDNA for human lymphotoxin, a lymphokine  
 with tumour necrosis activity  
 JOURNAL Nature 312 (5996), 721-724 (1984)  
 MEDLINE [85086243](#)  
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[NCBI](#) | [NLM](#) | [NIH](#)

MEDLINE 92339500  
 REMARK SEQUENCE FROM N.A.  
 REFERENCE 6 (residues 1 to 205)  
 AUTHORS IRIS,F.J.M., BOUGUELERET,L., PRIEUR,S., CATERINA,D., PRIMAS,G.,  
 PERROT,V., JURKA,J., RODRIGUEZ-TOME,P., CLAVERIE,J.-M., DAUSSET,J.  
 and COHEN,D.  
 TITLE Dense Alu clustering and a potential new member of the NF kappa B  
 family within a 90 kilobase HLA class III segment  
 JOURNAL Nat. Genet. 3 (2), 137-145 (1993)  
 MEDLINE 93272029  
 REMARK SEQUENCE FROM N.A.  
 REFERENCE 7 (residues 1 to 205)  
 AUTHORS Voigt,C.G., Maurer-Fogy,I. and Adolf,G.R.  
 TITLE Natural human tumor necrosis factor beta (lymphotoxin). Variable  
 O-glycosylation at Thr7, proteolytic processing, and allelic  
 variation  
 JOURNAL FEBS Lett. 314 (1), 85-88 (1992)  
 MEDLINE 93083656  
 REMARK PARTIAL SEQUENCE, CARBOHYDRATE-BINDING SITES, AND VARIANT.  
 REFERENCE 8 (residues 1 to 205)  
 AUTHORS Eck,M.J., Ultsch,M., Rinderknecht,E., de Vos,A.M. and Sprang,S.R.  
 TITLE The structure of human lymphotoxin (tumor necrosis factor-beta) at  
 1.9-A resolution  
 JOURNAL J. Biol. Chem. 267 (4), 2119-2122 (1992)  
 MEDLINE 92129275  
 REMARK X-RAY CRYSTALLOGRAPHY (1.9 ANGSTROMS).  
 REFERENCE 9 (residues 1 to 205)  
 AUTHORS Abraham,L.J., Du,D.C., Zahedi,K., Dawkins,R.L. and Whitehead,A.S.  
 TITLE Haplotypic polymorphisms of the TNFB gene  
 JOURNAL Immunogenetics 33 (1), 50-53 (1991)  
 MEDLINE 91139175  
 REMARK VARIANT ALLELE 8.1.

## COMMENT

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 This SWISS-PROT entry is copyright. It is produced through a  
 collaboration between the Swiss Institute of Bioinformatics and  
 the EMBL outstation - the European Bioinformatics Institute.  
 The original entry is available from <http://www.expasy.ch/sprot>  
 and <http://www.ebi.ac.uk/sprot>  
 -----

[FUNCTION] LYMPHOTOXIN IS A CYTOKINE PRODUCED BY LYMPHOCYTES WHICH  
 IS CYTOTOXIC FOR A WIDE RANGE OF TUMOR CELLS IN VITRO AND IN VIVO.  
 [SUBUNIT] HETEROTRIMER OF EITHER TWO BETA AND ONE ALPHA SUBUNITS OR  
 (LESS PREVALENT) TWO ALPHA AND ONE BETA SUBUNITS.  
 [SUBCELLULAR LOCATION] SECRETED.  
 [SIMILARITY] BELONGS TO THE TUMOR NECROSIS FACTOR FAMILY.

## FEATURES

	Location/Qualifiers
source	1..205 /organism="Homo sapiens" /db_xref="taxon:9606"
Region	1..34 /region_name="Signal"
Protein	1..205 /product="LYMPHOTOXIN-ALPHA PRECURSOR"
Region	1..205 13 /region_name="Conflict" /note="C -> R (IN REF. 6)."
Region	35..205 /region_name="Mature chain" /note="LYMPHOTOXIN-ALPHA."
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Region	60 /region_name="Variant" /note="T -> N. /FTId=VAR_007511."
Site	96 /site_type="glycosylation"
Region	125 /region_name="Variant" /note="T -> P (IN ALLELE 8.1). /FTId=VAR_007512."

## ORIGIN

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